Docket No. 1204.45527X00

Serial No. NEW

October 17, 2005

<u>AMENDMENTS TO THE CLAIMS:</u>

The following listing of claims replaces all prior listings, and all prior versions, of

claims in the application.

**LISTING OF CLAIMS:** 

1. (Original) A molecular detection method comprising visualizing and

identifying a chain molecule immobilized on a substrate by probing with a scanning

probe microscope in solution.

2. (Original) The molecular detection method according to Claim 1, wherein

the chain molecule immobilized on the substrate is an uprightly disposed single strand

molecule.

3. (Original) The molecular detection method according to Claim 2, wherein

the uprightly disposed single strand molecule is a nucleic acid, a peptide nucleic acid, a

peptide, a glycopeptide, a protein, a glycoprotein, a polysaccharide, a synthetic

polymer, or an analog thereof.

4. (Original) The molecular detection method according to Claim 1, wherein

the chain molecule immobilized on the substrate is a multiple strand molecule

comprising an uprightly disposed single strand molecule and at least one chain

molecule that can bind to the single strand molecule.

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(Original) The molecular detection method according to Claim 4, wherein 5. the multiple strand molecule is a complex of one or more types of molecules selected from a nucleic acid, a peptide nucleic acid, a peptide, a glycopeptide, a protein, a glycoprotein, a polysaccharide, a synthetic polymer, or an analog thereof.

- (Currently amended) A molecular counting method comprising detecting a 6. molecule by the method according to Claim 1 any one of Claims 1 to 5, and counting the number of detected chain molecules per unit area.
- (Currently amended) A molecular localization detection method 7. comprising detecting a molecule by the method according to Claim 1 any one of Claims 4 to 5, and counting the number of detected chain molecules per unit area, thus giving molecular localization information.
- (Original) A molecular detection system for detecting a chain molecule 8. immobilized on a substrate, the system comprising a jig for holding the substrate, a container housing the substrate and a solution, a probe, a probe detector, a drive mechanism for scanning the substrate or the probe in three dimensions, and a drive control circuit for controlling the drive mechanism.
- (Original) The molecular detection system according to Claim 8, wherein 9. it further comprises a device which visualizes the chain molecule.

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- 10. (Currently amended) The molecular detection system according to either Claim 8 er 9, wherein it further comprises a device which counts the chain molecules.
- 11. (Currently amended) The molecular detection system according to any one of Claims 8 to 10 Claim 8, wherein it further comprises a device which provides information about localization of the chain molecules.
- 12. (Original) The molecular detection system according to Claim 11, wherein it further comprises a device which discriminates between substrates with chain molecules immobilized thereon.
- 13. (Currently amended) The molecular detection system according to <del>any</del> one of Claims 8 to 12 Claim 8, wherein the chain molecule immobilized on the substrate is a single strand molecule uprightly disposed on the substrate.
- 14. (Original) The molecular detection system according to Claim 13, wherein the uprightly disposed single strand molecule is a nucleic acid, a peptide nucleic acid, a peptide, a glycopeptide, a protein, a glycoprotein, a polysaccharide, a synthetic polymer, or an analog thereof.
- 15. (Currently amended) The molecular detection system according to any one of Claims 8 to 12 Claim 8, wherein the chain molecule immobilized on the substrate

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is a multiple strand molecule comprising the uprightly disposed single strand molecule and at least one chain molecule that can bind to the single strand molecule.

- 16. (Original) The molecular detection system according to Claim 15, wherein the multiple strand molecule is a complex of one or more types of molecules selected from a nucleic acid, a peptide nucleic acid, a peptide, a glycopeptide, a protein, a glycoprotein, a polysaccharide, a synthetic polymer, or an analog thereof.
- 17. (Currently amended) A production process for a substrate with a chain molecule immobilized thereon, the production process including the method according Claim 1 to any one of Claims 1 to 7.
- 18. (Currently amended) A production process for a substrate with a chain molecule immobilized thereon, the production process employing the system according to Claim 8 any one of Claims 8 to 16.

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